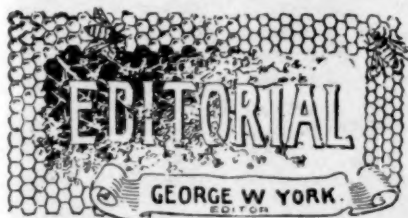


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Mr. W. A. Pryal, of North Temescal, Calif., is the "duly 'accredited' representative" of the AMERICAN BEE JOURNAL at the Midwinter Fair, now being held in San Francisco. On another page of this number may be found Bro. Pryal's first "special" report, which will doubtless be interesting reading to all, as he is one of the raciest writers in the Golden State.

☞ If I had the strength of a Samson I don't think I should waste it in stooping over hives, so long as I could get a seat.—
Dr. Miller.

Mrs. L. Harrison has again returned to her home in Peoria, Ill., after spending the winter among the ever-blooming flowers of Florida. Writing from that State on April 13th, Sister Harrison said: "The weather is very warm and pleasant. Bees are busy upon the bloom of honey-suckle and other flowers." If the delightful weather we are having now (April 16th) here in Chicago continues, it won't be long before bees will also be gathering honey in the North.

Farmer's New Guide—see page 517.

Our Apiarian Poets are wide-awake folks. We have had several corrections of the credit of the lines of poetry on page 465. The one quoting the lines said it was in Bryant's "Thanatopsis," instead of "The Death of the Flowers," by the same author. One of our bee-keeping poets, when calling attention to the error, wrote thus:

If he had quoted two lines a little further on, I think he would have voiced his feelings better, viz.:

"Where are the flowers, the fair young flowers, that lately sprung and stood
In brighter light and softer airs, a beautiful sisterhood?"

I suppose it was simply a lapse of the memory—a failing most of us can plead.
A SUBSCRIBER.

Yes, all make mistakes, and especially "ye editor." As an example of one of our utterly inexcusable errors, see the first editorial item in last week's BEE JOURNAL. Mr. Cornell died on April 7th, not "March 7th," as we had it. The "forms" were ready for the press when we received the sad news, and in our haste to get it in, the mistake was made. But there's no good excuse for it, anyway, and so we won't attempt further explanation.

Candy for Feeding Bees.—The *American Bee-Keeper* gives the following directions for making candy for bees: Two pounds of granulated sugar. Boil until it will crack when dropped into cold water; then take off the fire and stir in one pound of good extracted honey; then stir until it creams, and you will have candy that the bees can use in every kind of weather.

The Talk About Adulteration.

—In the April *Review*, Bro. Hutchinson has quite a lengthy editorial on "The Talk About Adulteration," in which he reviews the efforts that *Gleanings* and the BEE JOURNAL have put forth for years in "exposing" and condemning the adulteration of honey. Bro. H. doesn't believe in "exposing" adulterators, but urges "prosecution." Here is his idea of the matter:

Theft, counterfeiting, and all forms of crime and misdemeanors are held in check, not by exposing them, but by heavy penalties, either of fine or imprisonment..... The only effect of exposing such men when they are engaged in the adulteration of food products, is that of prejudicing the consumer against said product..... Continued "exposures" are only continued proofs to the public that its surmises are correct. How any sane man can doubt that such a course is terribly damaging to our pursuit, is past my comprehension.

I am aware that there would be considerable difficulty in furnishing absolute proof of adulteration, and for this reason, if for no other, I should favor prosecution instead of exposure. In prosecution everything must be *proven*, or there is no case; in "exposure" there is the temptation to report some suspicious circumstance "for what it is worth, and allow the public to draw its own conclusions." Take this case of Mr. Heddons, for instance, the Union did not consider that there was sufficient evidence to convict. If there is not sufficient evidence to warrant prosecution, there is not enough for exposure.

As will be noticed, we have not copied all the editorial, but we have given enough to pretty clearly show the position taken by the *Review*.

According to the above quotation, Bro. Hutchinson doesn't believe in "exposing" the fraud of adulteration, but rather that "prosecution" is preferable. We'd like to know how in the world he would "prosecute" a criminal without "exposing" him! Why, you've got to expose him, or make the charge, *before* you can arrest or prosecute! At least that is what we supposed would be the necessary procedure. We may be wrong in this, but think not.

The whole tenor of that *Review* editorial is, almost wholly in accord with the position taken on the subject of adulteration by James Heddons—"if we cannot *prevent* adulteration, the best thing we can do is to keep still." But we don't believe in "keeping still," and letting wrong-doing and crime continue according to "its own sweet will."

No, sir! we don't believe that is the way to deal with any evil, and especially with the adulteration of food products.

We believe in condemning and uncovering wickedness, and bringing it out into broad daylight, where its hideousness and shame-facedness may be seen. In other words, we believe in giving evil the biggest "exposure" possible, so as to aid those whose duty it is to arrest and then "prosecute."

In the last number of the *Michigan Farmer*, is a splendid article on the subject of "Honey Adulteration," particularly referring to the "hush-up policy" proposed by a few people, the *Farmer* editor being among them, to whom the article replies. It was written by Mr. DeWitt C. Matthews, of Michigan, and is so sound in the stand taken and arguments advanced, that we are led to extract the following:

As it appears to me, you lose sight entirely, in your reply, of the main point at issue, viz.: the *policy* of spreading broadcast such items as are obnoxious to 90 per cent. of the bee-keepers of these United States, and I may say of the world. Your reply is, as it appears to me, wholly devoted to establishing the facts that there are a certain few bee-keepers who advocate a hush-up policy, and that the analysis will not *always* show the *exact* amount of foreign matter in adulterated honey. Both are granted, and I have nowhere intended to deny them. But I do claim these facts to be substantially true: first, that not 5 per cent. of the bee-keepers of the United States and Canada are advocating the hush-up policy; and, second, that chemical analysis is *practically* a proof of the purity, or otherwise, of honey—a proof relied upon both by individuals and courts of justice.

..... I can recall but one leading apiarist in this State who has right along advocated the hush-up policy, and he is now meditating upon the fact that "The way of the transgressor is hard," for some of his honey, has lately been analyzed and found to be, "undoubtedly adulterated with at least 50 per cent. of glucose." [See report of H. W. Wiley on page 456.—Ed.]

..... If the Wayne county bee-keeper mentioned has established a reputation for honesty and truthfulness, then a label on each package of his honey, containing, over his name, a guarantee of its purity, should have been satisfactory. The grocer, in all such cases, would be able to satisfy the would-be purchaser of the reliability and standing of the producer. There should be no trouble in such cases of a buyer getting just what he calls for. Honey-buyers may as well learn the fact that they had better purchase the honey produced by local bee-keepers who dare to put upon each package a guarantee of its purity, and give the "go-by" to all those fancy packages that come

from "no-where," and are put up by "nobody."

You say: "Let the war against adulteration go on by all means, but let it be by deeds, not words, that create a sentiment against honey." Is that the way the laws in regard to adulterating and counterfeiting food products in this and other States were obtained? No! about every paper and publication throughout the State or locality in which such laws were desired, and every speaker at agricultural and other such gatherings, raised the hue and cry all along the line until even the average legislator "smelt something in the air," and prepared to move accordingly. As I look at it, all reforms have been brought about by a vigorous stirring-up policy, which is advocated by 95 per cent. of prominent beekeepers in regard to this hydra-headed monster—adulteration.

DEWITT C. MATTHEWS.

Just a word more: Bro. Hutchinson does not believe in "exposing" the adulterators. How can he hope to prosecute *without* exposing? Why, prosecution is in itself the biggest kind of exposure!

As to the Union not considering the evidence against Mr. Heddon sufficient to convict, we may say that was when the Union had only Prof. Wiley's analysis, a year or so ago. Since then, we believe, the Union has not taken cognizance of the evidence obtained in the last few months—the analysis of Willard's "Heddon honey," for instance. It would seem that the case is a great deal stronger now than it was a year ago.

Comment on Heddon's Reply.—

Last week we gave Mr. Heddon's reply to the charges against him as published in *Gleanings*; the following are the comments upon Mr. H.'s reply, by both A. I. and E. R. Root. Here is the comment by A. I. Root:

We are very glad indeed, Mr. Heddon, to see you appeal to the public at large who have purchased honey of you before, that gave satisfaction. Here is a postal just put into my hands:

A. I. ROOT:—It doesn't seem as though you are going to stop that cry of adulteration. If you had, I should want to stop "*Gleanings*." You surely hit the nail on the head in the Heddon honey. I bought two cases of him several years ago, and I then thought it was "not honey." I sent a sample to you by mail, but it was broken in transit. G. F. AYERS.
Atherton, Ind., March 20.

You say you shipped no impure honey to Mr. Willard, nor to any other man, during 1893 and 1894. How about what you shipped before 1893 and 1894? And furthermore, I do not see that you state clearly that you never adulterated.

If it will damage bee-keepers materially by making arrests, or publishing the names of those selling glucose for honey, what in the world are bee-keepers to do?

I am aware that S. T. Fish & Co., and other commission men, have offered extracted honey in quantities at a low figure; but so far as I know, no one has advertised honey in a retail way as cheap as or cheaper than you have done, *for the same grade and source*.

Had you been present at some of the recent national conventions, especially the one held in Washington, and that held during the World's Fair, in Chicago, you would have seen Prof. Wiley not only warmly welcomed, but held in very high esteem by the bee-keepers of our land. Prof. Wiley may have been unwise in the past, but he surely is the friend of all beekeepers now.

You ask what good it will do the beekeepers of our land to be notified of these things. It seems to me the answer is self-evident. See contents of postal above. If a bee-keeper and honey-producer has been guilty of adulterating his honey with glucose, I do not think he will follow it very long after he has been publicly exposed through the journals. This policy will help to protect bee-keepers against this glucose competition.

The two cans of honey that are now in our possession have a printed tag attached to them, and just like other tags from you direct.

Why didn't we send you an advance proof? You yourself answer the question. We wrote to you a year ago, once or twice, telling you of the evidence that we then had in our possession, and you wrote letters to us, and to other parties, wherein, as usual, you "lose your temper," etc. Yes, indeed, we have a letter from you to another party, wherein you refer to Prof. Cook and ourselves as "fools," "silly gang," "simpletons." In a recent communication to us you accuse us of trying to rob you of your rights, "of using the black-mail system," etc. We do not see how you could expect advance proofs under such circumstances.

If the chemists of our land are ignorant and vicious, we should like to let the judges of honey, and honey-producers, taste of the stuff in those cans which came to us from you through a third party as pure honey. We know that honey from different localities varies, and that late fall honey is often poor in any locality; but out of the thousands of samples that have been submitted to us for inspection, we never yet tasted any honey gathered by the bees, having such an unmistakable flavor of corn syrup as this. There is enough to it to go around, and it speaks for itself plainer than words.

A. I. R.

Immediately following the foregoing comment by Bro. A. I. Root, came these paragraphs by E. R. Root:

Mr. Heddon refers to the honey of Mr. Jankovsky, from S. T. Fish & Co., that was

pronounced by Prof. Smith to be adulterated, but which, by Prof. Spencer, on its second analysis, was declared to be pure. Mr. Heddon probably failed to observe that Prof. Smith pronounced the honey adulterated with *sugar syrup*, and showed only 15 per cent. We have before stated that we believe it is generally admitted by the best chemists that it is not always possible to be certain regarding the small per cents of *sugar* adulterations, especially if the syrup has passed through the organism of the bee; but when we come to the matter of *glucose* adulterations, we are not aware that the chemists have ever made any mistake. Glucose is very easily detected, and its presence can be known to a certainty.

On page 688, Sept. 15th number, 1892, *Gleanings*, you will remember Prof. Cook reported having sent to Prof. Wiley and some others of the best chemists of the country 50 samples—some adulterated with glucose, some with sugar syrup, and some not adulterated at all, but all known to Prof. Cook by number, and the exact amount of adulteration, if any, in each of the samples. When the reports of the analyses were received, it was shown that each of the chemists recognized unerringly the glucosed samples, and most of the sugar syrup samples. It seems to us that this test ought to be pretty conclusive.

Mr. H. may refer to the case of Mr. Chas. F. Muth, whom everybody knows to be opposed to glucosed adulterations, but whose honey was pronounced adulterated with glucose, by one of Prof. Wiley's associates. But it has been conclusively shown that these glucosed samples, alleged to have come from Mr. Muth, bore counterfeit labels; and we have not a doubt in our own mind, that a man who would forge a label would not hesitate to adulterate.

If Mr. Heddon has not adulterated, his recent utterances defending the practice, objecting to the change in the Constitution of the National Bee-Keepers' Union, and saying, among other things, that "All the Bee-Keepers' Unions this side of fairyland could not stop one little honey-producer from adulterating," and trying to make us believe that, apparently for the purpose of making glucose-mixers escape detection, is about as reprehensible as to adulterate.

E. R. R.

Alsike as a Honey-Plant.—A writer in the *Montreal Witness*, styling himself "Lindenbank," says this about the value of Alsike clover as a honey-plant:

It is better for honey than the basswood tree, and hardly inferior to white clover as bee-forage. Hence, all farmers who keep bees should grow large areas of Alsike, and induce their neighbors to do the same. It will pay the bee-keeping farmer to give away the seed to his neighbors. Bee-keeping specialists who keep large numbers of bees, but own no land, are usually ready to give away seed both of Alsike clover and buckwheat, and find that it pays them abundantly to do so.



ANSWERED BY

DR. C. C. MILLER,

MARENGO, ILL.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—Ed.

Swarming Out in Spring.

We are having spring again, and bees are flying and carrying in some pollen. My bees nearly have the "spring dwindles;" as a result they have been compelled to drag out their brood, which was chilled. The fruit-bloom was all killed by the freeze, and we have poor prospects for the coming season. We will have to feed them for some time yet, as they have used all their stores in brood-rearing. I got about 80 pounds from 4 colonies last summer, but we did not have many fall flowers, and had to feed. I have lost one by swarming out. What is the cause?

T. F. C.

Otwell, Ind., April 6.

ANSWER.—I don't know why bees swarm out as they sometimes do in the spring. Sometimes they swarm out because they run out of stores and are on the point of starving. They are then called "hunger swarms." But they sometimes swarm out with no danger of starving, leaving brood in all stages in the hive, and I don't know the cause. I have an impression that as a rule such colonies are not well able to cover the brood they have, but I'm not sure about it. In all cases that I have seen, the colonies were rather weak, and I doubt if a very strong colony will desert its hive in spring.

Transferring—Section Honey, Etc.

We are having a rather forward spring here. I purchased a colony of black bees in a box-hive a year ago last December, from a man who had 25 colonies, and he kept them till spring. When he took them from the cellar, he had 7 colonies, and when they settled down for the summer he had only 3—the rest were lost through robbing, induced by putting the old hives out for the bees to clean. He noticed, one day, that some bees were at work at one of his robbed hives, and in a few days had the pleasure of seeing a swarm come from the west

and take possession of the hive. My bees he brought to me last November, with one colony of increase. We put them into the cellar at once, where they remained until March 17th; it being a nice morning, and the soft maples in bloom, I put them out and got a "shanty" over my eye, as many other people do on the day that they meddle with "other folks."

They had a nice flight, and gathered some pollen. The ground was white with snow yesterday morning (March 25th), and we had squalls all day. I knew nothing of bees or bee-keeping when I got my bees, but I subscribed for the BEE JOURNAL and have read "Bees and Honey," and I think I will be able to handle the bees after a fashion, if I ask questions enough, and get them answered, so here goes:

1. Would you advise me to transfer one or both of my colonies to frame hives (say something after the style of the dove-tailed hive) in the coming fruit-bloom? One colony's combs are quite black, and I am afraid of moths or "miller-worms," as they are called around here, as I saw a suspicious-looking worm on the bottom-board when I put them out—it was about 1 inch long and $\frac{3}{8}$ inch in diameter.

2. What is the best remedy or prevention for moths? Bee-keepers make a great "ado" about them here, but I see scarcely anything about them in the BEE JOURNAL. The colonies seem strong and heavy, and I think they have brood. Will they rid themselves of their intruders (moths)?

3. Will a virgin queen, if she fails to meet the drones on her first trip, make a second or third trip for that purpose?

4. About how old will she be when she takes her trip, and at what time of day?

5. Will an unmated queen leave with a swarm if there are protected queen-cells in the hive?

6. In running a colony for comb honey in sections, in section-holders, should there be a bee-space between the sections and cover? and if the supers are tiered, should there be a bee-space between the tiers of sections? If so, do not the bees soil the sections at such places? I should like to run my bees for section honey, as soon as I can, and I want the sections soiled as little as possible.

7. Will I get nearly as much surplus honey if transferred on frames containing full sheets of foundation, as if left in the old hives arranged to put sections on top? I intend putting full sheets of foundation in the sections.

Bees wintered well here last winter—what few there were. Nearly all the bees died the winter before. I do not think there are a dozen colonies within a radius of three miles. We have some basswood along the Sugar river here, and lots of white clover, besides other bloom, and I should think bees will do well. J. H. D. Belleville, Wis.

ANSWERS.—1. If you intend to do much with bees, you will probably never be satisfied till you have them in hives with movable combs. But remember it's for your

own convenience instead of any benefit to the bees that movable combs are used. But don't worry about the brood-combs being black. Black combs are better than white in the brood-nest.

2. The best remedy for moths are strong colonies of bees, and Italians will keep out moths better than blacks. A good colony of Italians will clean out moths without any help from you.

3. Yes, a number of trips.

4. Perhaps generally when 5 to 7 days old, in the heat of the afternoon.

5. Yes.

6. Yes, have the bee-spaces. If the sections are taken off as soon as finished during the harvest, they will be pretty clean, and if there is no bee-space they will crowd in glue badly. But leaving sections on after the honey-flow stops, will insure the sections being badly daubed.

7. There ought not to be much difference. If there is much drone-comb in your present hives, you may get more sections of honey by transferring.

Placing Hives—Sweet Clover.

1. Would there be any difficulty in placing a number of hives close together on a stand? Would they be likely to rob one another by so doing, or must they be a certain distance apart?

2. If I plant one acre of sweet clover one or two miles away in any direction from the hives, will the bees be likely, or sure, to find it? H. S.

Rockport, Utah.

ANSWERS.—1. Inconvenience in handling makes it objectionable to put more than two hives close to the side of each other. So far as the bees are concerned, three hives side by side are all right, but when you go beyond this there is danger that bees may get into the wrong hives, unless trees or other objects help to mark the entrance.

2. If there was a scarcity of pasture, there would not be much trouble about their finding it if there was any considerable quantity of it in a place, and possibly they would find it all right if it was scattered.

What Caused the Diarrhea?

It seems almost impossible to winter bees in this locality. Three years ago I bought some bees that had the diarrhea. Of course some of the old honey was in the hive, and I lost 28 colonies out of 53. Last summer we had a fearful drouth here, consequently hardly any honey, and I fed considerable honey from the colonies that died this winter. I have lost almost all of mine—31 out of 38. All died with plenty of stores. I have a good a winter house for my bees as I know how to make, and I have been a mechanic for 25 years. It is not only I, but other parties have lost as well, whole apiaries gone. My bees commenced to spot their hives about the middle of January.

Now there is some cause for this, and I must find out what it is. Our honey consists of white clover and basswood, and goldenrod, mostly, and I don't know of anything that they gather from but what is good honey.

Where a colony of bees has had the diarrhea during the winter months, and some of the honey used for winter stores of another colony the following winter, will it cause diarrhea, where the bees are housed? Or is such honey contaminated with the disease?

H. M.

Rush City, Minn.

ANSWER.—Diarrhea may occur with the best of stores, the disease arising from some other cause than the character of the stores. In such case, if what stores are left are used the following winter, it is considered all right.

If, on the other hand, the honey itself is bad, then of course it will be unhealthy the second winter as well as the first.

Possibly it might be a good plan for you to try part of your bees in the cellar another winter, although some succeed well in your State with bee-houses specially prepared.

A Queenless Colony.

Looking over my bees a few weeks ago, I found one of them queenless. Would it be best to send for a queen and introduce her now, or wait until fruit-bloom? The bees seem to be strong yet.

S. B. W.

Geneva, N. Y.

ANSWER.—Probably it is better to give them a queen as soon as possible, although so long as the weather is such that they cannot fly out, they will hold their own all right. Still, they would be better to be rearing brood so as to be on the gain.

Honey Candying—Quilts on Hives.

1. Is the candying of honey a sure sign of its purity?

2. Does honey ever candy in the cells when sealed over?

3. Is it necessary, and do most bee-keepers use, a quilt of any kind under the cover of the dovetailed hive?

W. K. R.

Portland, Oreg.

ANSWERS.—1. No. Some pure honey does not candy, and honey mixed with other substances, as glucose, will candy.

2. Yes.

3. In general, I think no quilt is used under the cover of a dovetail hive. Possibly it might be a good thing for winter.

Honey as Food and Medicine is just the thing to help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the BEE JOURNAL for description and prices.



No. 70.—O. L. Hershiser.

The subject of this sketch was born at Shelby, Richland county, Ohio. When quite small his parents removed with him to a farm in Williams county, Ohio, and shortly afterward to Bryan, the county-seat. At the age of 11 his people again removed to the farm, where he remained until he became 21 years of age. He entered college at Lansing, Mich., shortly after with the class of '84, with which class he graduated. He taught country schools during winters throughout the time he was a student in college, and four winters after graduating.

In the fall of 1884 Mr. Hershiser spent several weeks with Mr. D. A. Jones, at Beeton, Ont., learning what he could of bee-keeping on a large scale. During the summer of 1885 and 1886, he superintended a large apiary for Mr. E. C. Hubbard, at Water Valley, Erie county, N. Y. During the summer of 1887 he conducted his own apiary in connection with the apiary of Mr. W. T. Falconer, at Falconer, N. Y.

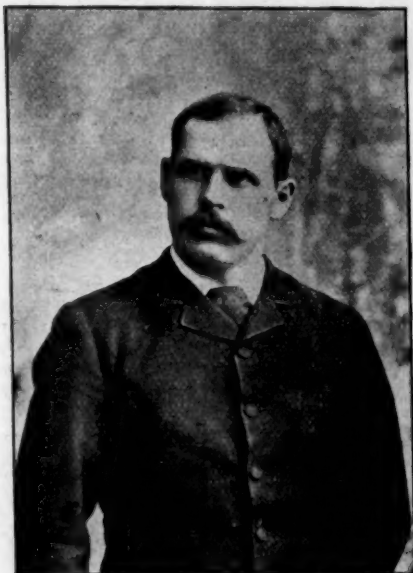
In the spring of 1888 Mr. H. removed his apiary to Big Tree, Erie county, N. Y., three miles from Buffalo city limits, where he still resides. In March, 1889, he began studying law in Buffalo, still conducting his apiary at Big Tree.

He was appointed superintendent of the apiarian department of the Buffalo International Fair, and the Detroit International Fair, for the fall of 1889. He was admitted to the bar on June 5, 1891.

At a meeting of the New York State Bee-Keepers' Association he was appointed one of a committee to endeavor to secure an allotment from moneys appropriated, or to be appropriated, for the State exhibit at the World's Fair, for the benefit of the New York State bee-keepers in making their exhibit. In 1892, as is well known, Mr. Hershiser was appointed superintendent of the New York State apiarian exhibit at the World's Fair.

Mr. H. still has an apiary, and has always been deeply interested in bees. While at college, during his junior year, he chanced to see an absconding swarm cross the campus. He chased them for a mile, across fields of grain and over fences, and finally located them in the hollow trunk of a maple tree. Obtaining permission from the owner, he cut the tree, secured the colony, and from that time until he graduated he had a colony of bees in his room window, during the summer months.

Mr. Hershiser's first experience with bees was with a colony his father took



O. L. HERSHISER.

on shares when he was about 14 years old. This colony was in a box-hive, and his frequent examinations of the bees was done by tipping the hive back, and looking up from beneath.

Prof. Cook kindly furnishes us the following about Mr. Hershiser :

Mr. O. L. Hershiser was a student at the Michigan Agricultural College where I was professor of zoology, for four years. He was also my assistant in the apiary in his senior year. Mr. Hershiser was enthusiastic in his work, and very faithful in all his duties. During Mr. Hershiser's sojourn at the college, my

other duties were very onerous, and I perforce could give but a small portion of my time to the bees, so I left much of the work and no slight responsibility on him. I always felt sure that he would do his very best.

Mr. Hershiser is better than an earnest worker. I believe him a sincere lover of right and truth. I have never heard of his engaging in any enterprise that was not worthy, and have always found him wide-awake and enthusiastic in promoting any good cause. I was glad to vote for him as Vice-President of the North American Bee-Keepers' Association at the Chicago meeting, last fall.

A. J. COOK.



CONDUCTED BY

MRS. JENNIE ATCHLEY.

BEEVILLE, TEXAS.

Cause of Bees Swarming, Etc.

I see on page 406, in the report of the Wisconsin Bee-Keepers' Association, that the *cause* of swarming is a crowded hive and heat. If they mean to stop with these two causes as the principal ones, I now see plainer and plainer that Northern and Southern bee-keeping is a long way from being the same, as the principal causes of swarming in this country are general prosperity, and the right time of year for it.

Bees swarm naturally here with a bushel of room and unoccupied space in their hives, and with *plenty* of empty combs besides. If bees are not gathering honey, or have not plenty of stores, you may place their hive out in the boiling sun, and they may cluster on the outside of the hive, and cover it all over, and have no thought of swarming; and I find that my colonies in hives that are in the shade, swarm just as quick, and sometimes before those in the sun. So I have it down, that the main causes here are general prosperity, and the right time of year for such things; as later in the season, when more honey

and less pollen is being stored, the swarming season never runs so high.

It is a superabundance of pollen that stimulates our bees here most, and I do not think that if pollen came in sparingly in early spring, and more honey, we would have less swarms. Our bees sometimes get an abundance of pollen in the fall, and swarm. Of course they get some honey, too, at the same time they are gathering so much pollen, and a scarcity in flow of honey, and an overflow of pollen once gave my bees the swarming mania in May, and some colonies swarmed four times each.

Now it is the nature of bees to swarm, and when the time of year comes, and they are gathering plenty of pollen and some honey, the queens will be stimulated to their utmost, drone-eggs laid, a full hive of bees, and a general good time, etc.; and they can no longer stand such prosperity, and so they swarm. But sometimes they begin swarming preparations, and a dearth comes before the time to swarm, and all hands become suddenly discouraged, and tear down cells, etc., and no more swarming until times get good again, even if they are in the sun.

JENNIE ATCHLEY.

Making Wax Queen-Cells.

MRS. ATCHLEY:—Will you tell me how you make wax queen-cells?

Olney, Ills.

DAVID FARIS.

Friend F., it would take me quite awhile to tell you all about making wax cells, but you can get the book free that tells it all, by subscribing for the BEE JOURNAL.

JENNIE ATCHLEY.

Selecting Breeding Queens.

Mrs. Atchley, will you please tell me how you select a breeding queen?

SUBSCRIBER.

Friend Subscriber, this is an important matter to me, at least, and I have just picked up my own way by littles, how to select a breeder that suits me, and if you will not laugh at me, I will give my plan in detail as follows:

1st. I select a well-developed virgin queen.

2nd. I mate her to select drones, and my way of crossing stock is by using drones of a different strain.

3rd. When she begins to lay, I see that she—plants one grain in a hill—lays one egg only in a cell.

4th. That she is lively, and seems independent, or holds up her head.

5th. Prolific.

6th. That she produces a uniformly-marked progeny.

7th. That her bees take care of the eggs she lays.

8th. Her bees *must* be good honey-gatherers.

9th. I prefer that her bees are moderately gentle, but ready to "leg" a robber, or catch her on the wing.

10th. I want her to stay on the combs and mind her own business when the hive is being manipulated.

Now, these are *my* principal points to consider, but there are many minor points, such as her bees being quick to enter supers, etc. But if I can get a queen that fills the bill down to this, I will attend to and risk getting them into the sections.

You see it takes a long time to select a breeder and test her as she ought to be tested, and it takes patience, but I *must* have just such queens as breeders before I am satisfied.

JENNIE ATCHLEY.

Some Ancient Hive Specimens.

Mr. Niemuller, of Nebraska, sent me, a few days ago, an old-fashioned straw skep or hive, with the old-fashioned queen-cage and feeder. What a treat it was to me, being the first one I ever saw. I am going to put in it a fine colony of Italian bees, and have it to show to my bee-keeping friends when they come to see us. I would not take a horse for it (a little horse). *Thank you*, Friend Niemuller.

I also have an old-fashioned log-gum with its projecting cross-sticks. I shall also occupy it with a colony of Italian bees, and keep it on exhibition—not for their superior advantages, but to show their disadvantages, and to illustrate the improvement apiculture has made.

JENNIE ATCHLEY.

The Amateur Bee-Keeper, is the name of a neat little pamphlet designed for the class its name indicates—amateurs and beginners in bee-keeping. It is written by Mr. J. W. Rouse, of Missouri, a practical apiarist and helpful writer. It contains over 60 pages, and we will send it postpaid for 25 cents; or club it with the BEE JOURNAL for one year—both for only \$1.15.

Great Premium on page 541!



Honey Granulation and Prevention.

Query 920.—1. Will all good, pure extracted honey granulate in cold weather?

2. If not, why not? And how may it be prevented?—Wisconsin.

1. No. 2. I don't know.—C. C. MILLER.

1. No, but it usually does. 2. I don't know.—J. M. HAMBAUGH.

1. I don't know, but most kinds will. 2. You tell.—J. H. LARRABEE.

1. No, but it takes a smart man to explain the reason why. I don't know.—C. H. DIBBERN.

1. Some kinds of honey, like the Spanish-needle, does not. 2. Can it up hot.—MRS. L. HARRISON.

Our honey granulates unless kept in a very warm place. Also keep it in a dark place.—P. H. ELWOOD.

1. I have never seen any that will not. 2. It cannot be prevented, and the honey remain pure.—M. MAHIN.

1. I have never had any that would not. Some grades granulate sooner than others. 2. By heating.—JAS. A. STONE.

1. I think there are exceptions. 2. It depends upon the kind of honey. I have never tried to prevent it.—EUGENE SECOR.

1. All gathered in my locality does. 2. Unless it is very thoroughly evaporated and kept in a warm place.—R. L. TAYLOR.

1. Not all. 2. Much depends upon its source, and probably upon causes or conditions not fully understood.—J. P. H. BROWN.

1. Mine always does. 2. Nectar from some kinds of flowers does not granulate. I do not know how to prevent it.—MRS. J. N. HEATER.

1. Not all, but as a rule honey granulates, or "candies," as it is termed, on the approach of cold weather. 2. I know of no way of preventing it without injuring the honey.—G. M. DOOLITTLE.

1. No. 2. I don't know why. It may be prevented for some time by warming the honey and sealing it up air-tight while hot.—A. B. MASON.

1. All I ever saw would. 2. I do not know how to prevent it, nor do I believe I care to know, as it is my sign of purity.—MRS. JENNIE ATCHLEY.

1. So far as my own experience goes, it will. In some cases it takes much longer time than in others. Why it does, I don't know, except that it is according to nature, I suppose.—J. E. POND.

No; but the liability of granulation is strong. I am inclined to think that the temperature is the principal thing responsible. (Question: What is the proper temperature?)—W. M. BARNUM.

1. Mine always does, but I am satisfied there is pure honey that does not. 2. I can prevent it from granulating by heating it boiling hot, and then while hot put it up in air-tight cans.—E. FRANCE.

1. Very nearly all. There are some exceptions. 2. It is not known. It must be something in the kind. Keeping it warm will prevent it. Re-liquifying and sealing air-tight helps to keep honey from granulating.—A. J. COOK.

1. No. 2. Honey from some sources does not granulate as readily as that from others. Thoroughly ripened honey does not granulate as readily as thin honey. Granulation may be prevented by heating, but the flavor is apt to be injured.—J. A. GREEN.

1. Yes, as far as we have ever seen. Exceptions are very scarce. 2. The only instance where we saw honey remain liquid was where it had been extracted late in November. It can only be prevented by heating and keeping in a warm place.—DADANT & SON.

1. It generally will do so, especially where subject to alternating thawing and freezing. 2. Continued cold or heat will prevent its granulating. I have had honey that showed no signs of granulation as long as the temperature was kept even (60°).—S. I. FREEBORN.

1. Not all, but nearly all, pure extracted honey will granulate in cold weather. 2. The reason why some kinds of honey does not granulate has not been clearly shown. One thing is certain, very thick honey is liable to candy soon. If it was thinned with water, and then canned just after bringing it to the boiling point, it would not granulate. But the heating is apt to injure the flavor. A line of profitable

experiment seems to be open here for some one.—G. L. TINKER.

1. As a general thing "yes," but not always. 2. If it is heated in a water-bath not over 50°, and sealed up, it will remain for a long time without granulating. I have some now that was heated the same, put up the same, and at the same time, all from the same package; some has granulated solid, while the greater portion is clear, with no signs of granulation.—H. D. CUTTING.

1. It may, and it may not. Wife says we had some one winter that did not granulate. 2. I do not know. You might heat it and seal it up, or I presume you could keep it from granulating by keeping it in a warm room. We keep it from granulating in the stores by taking it out as fast as it granulates and replacing it with liquid honey. We liquify this without removing from the bottle, and sell it again on the next round.—EMERSON T. ABBOTT.

1. As a rule, yes. But I have seen samples, and now have two samples in my collection, of my own producing, that I know to be pure, that has never candied or granulated. One of these samples is of the crop of 1877—or nearly 17 years old. 2. I suppose because honey is a combination of the principles of sweets, and I think that the more cane sugar a sample contains, the sooner it will granulate. I don't think it advisable to try to prevent its granulation.—G. W. DEMAREE.



Shipping Queen-Bees by Mail.

Written for the American Bee Journal
BY DR. J. P. H. BROWN.

As the season for shipping queens will soon be here, anything that can be said on the subject that will lend assistance in the preparations for their journey, so as to secure a safe arrival, will, no doubt, be acceptable to the queen-breeder.

I have sent thousands of queens through the mails, in nearly every variety of cage, to all portions of the United States—to Canada, the West Indies, and to Mexico—and I have had my successes and my losses.

I commenced with a cage provisioned with honey contained in a sponge. The losses averaged about 10 per cent. This cage was formed by a 1½ inch hole ¾ deep, with an entrance slot which held the sponge. I came to the conclusion that the bee-space was too small, and changed to a larger cage with a special repository for the sponge. I also gave more ventilation. My losses were less, and only occurred in sending long distances, and during dry, hot weather.

I then added a water bottle. At first a very small vial with a cork that had a slot cut in, through which passed a thread to emit the water. This was not satisfactory.

In provisioning mailing cages with honey, I found it very difficult to get honey of the right consistency so as to "stand up," if I may so speak, in changes of temperature. When it was warm, the honey would often run and daub the bees, and this is always equivalent to death. Another point was to use only honey of the very best grade. No "doctored stuffs" would answer.

I then provisioned with the finest pulverized sugar with sufficient honey worked into it to form a mass about the consistency of putty. I wanted it to keep its position without running or becoming dauby. This sort of candy I still use, and always make it up a day or two before I use it. With this candy and 1½-inch bee-space, queens can be mailed with perfect safety anywhere inside of a thousand miles, but where the distance is greater a larger space is necessary, with abundant ventilation. But for a three thousand mile journey, or over, I use a solid candy made of the best granulated sugar, and have a small tin water-vessel attached with two compartments, which enables the bees to secure it in any position in which it may be placed.

The requisites for successful mailing seem to be:

1st. The provision, its arrangement, and the bee-space, must be suited to the distance and the probable length of time of confinement. Greater care is required in hot weather than when moderately cool. Larger cages admit of better ventilation, for when the cage gets into the mail-bag, along with other matter—often crammed to its utmost

capacity—the only air the bees get is what is contained in the cage.

2nd. The attending bees should be young bees near the age that they take to the fields. Six to a dozen are sufficient, depending upon the weather. Too many bees are worse than too few. The queen should be in a vigorous state of health. It is a question with some bee-men whether it is best to cage the queen a day before shipment; for my part, I prefer to ship at the earliest moment I can.

CONTINGENCIES.—The extent of other matter in the mail-bag, the manner in which it is handled; the gentleness displayed in handling the cages at distributing offices—all are important factors in the safe arrival of queens. After the queens arrive safely at their destination they are often injured by persons shaking the cage, or blowing their breath into it to get the bees to buzz. Sometimes the consignee is not ready to introduce—lay them aside for a time, but every now and then give the cage a violent shake to see if there is any life in it. When he gets ready he introduces it in a bungling manner, and makes a botch of it. The poor, sick, maltreated queen dies, and the blame is too often laid to the shipper.

Augusta, Ga.

California Midwinter Fair Notes.

Written specially for the American Bee Journal
BY W. A. PRYAL.

Following fast upon the heels of the great Fair that was held in Chicago last year, came the Midwinter Fair in San Francisco. This Exposition was planned and put in operation in about six months after the project was first given to the public. The world would hardly believe that a people living out in a comparatively new country like California, which is often referred to as being out in the wild and woolly West, would be able to inaugurate a Fair that would be anything more than a country show.

But Western push and enterprise has produced a Fair that stands in this country second only to that great Columbian Fair of Chicago. There are even some features about the San Francisco Exposition that rivals that of the city on the shores of Lake Michigan. Though the buildings in which the show is housed cannot begin to compare with those of Chicago in point of size, still, the architectural features are as good;

in coloring and landscape effects they are in some respects superior. The only pleasing feature of the Columbian Fair that is wanting at the one at Sunset City, is the charming lagoons and waterways. But the hills that rise beyond the Fair grounds give a charm to the San Francisco Fair that in a measure compensates for the loss of the water that was so fair to look upon at the late big Fair at Chicago.

And then the climate at the former place is something in itself that is sufficient to make the Fair now in progress at San Francisco the greatest that has ever been held in the world. It is not every part of the world that is able to get up a Fair, and exhibit at it a climate that is first-class. That San Francisco is doing this spring, and those who visit the Fair during these days are delighted with it.

As nothing has yet appeared in the pages of the AMERICAN BEE JOURNAL about the Fair, I shall, at this time, only refer to the exhibits in a general way. Most of the things exhibited were shown at the Columbian Fair, therefore, as many of the readers of the BEE JOURNAL saw the latter Fair, it will be needless to make mention of the general exhibits. There are several exhibits made by San Francisco houses that were not shown at Chicago, and which are equal to anything displayed at the World's Fair.

What will interest bee-keepers the most is the apiarian display. Truly, it would interest them if there was anything for them to see, but I am sorry to say that there is nothing there worthy of being called a "honey exhibit." I trust that now since the new crop of California honey is beginning to come, an attempt will be made to get up a show of California honey and beeswax that will equal anything that has been yet shown at any Fair ever held in this country. In saying this, I do not wish to convey the impression that any other part of the world cannot beat this State in the extent and quality of its honey. Of course Californians naturally believe that their honey is the finest in the world, for the chief reason that nearly everything they produce is finer than that raised elsewhere.

It was only a week or two ago that while in conversation with a gentleman who had been an apiarist in the State of Pennsylvania for many years, and who is now on a visit to this State, and who, of course, had been to the Midwinter Fair, he said to me that in all his experience he had never seen any honey that

was as white and delicious as the white honey of California. In his comments upon the honey exhibited at the Fair just mentioned, he said that he was surprised that the sections were not better filled out at the edges. In the East, he said, the bees seemed to fill out the sections clear to the edge of the wood, which gave the section of honey a much prettier look than that of the California section. In my observations, I find that this is occasionally true, but it is not the rule every year.

But I am getting away from what I had seen at the Fair. As is well known to American bee-keepers, one end of a gallery in the great Agricultural Building at the Columbian Fair was set apart for the apiarian exhibit. A fair amount of space was thus afforded the bee-keepers in which to exhibit their wares and products. At our California International Exposition the management has been equally liberal—in fact, I am inclined to the belief that they have been far more liberal than were the Columbian managers, for here I find that one whole end of the gallery forming nearly half of the southern portion of the Horticultural and Agricultural building, is at the disposal of the bee-keepers. And yet I am sorry to say, as I have already intimated, our apiarists have failed to avail themselves of this liberal allotment of space.

Why, in this, I might almost say, vast space, the honey exhibits take up so little room that one would almost pass it by without seeing it, so insignificant does it appear to the casual observer. And such a place to have it! It stands close to the rotunda beneath the dome, near the edge of the gallery, and it is perched, apparently, so insecurely upon a table or stand, that one should suppose that with a slight and accidental pressure it would be precipitated over the railing and dumped in a promiscuous mess upon the beautiful exhibits of fruits and wines below.

Looking more carefully at this "show," for it is the queerest honey show that I have ever seen anywhere, I find that it comes from several of our well-known honey-producers in the southern part of the State. I have not the least doubt but every ounce of this honey was of the choicest kinds when it was placed where I saw it, but the excessive light that streams in through the immense glass dome above it, to say nothing of the heat that is produced by so much glass and Old Sol, has had the effect of candying nearly every ounce of extracted honey shown in jars and exhibi-

tion oil-bottles. This candied honey does not look like honey when in this condition; it is more like lard than anything else. I was surprised to see so much of the honey in this form.

The comb honey looked more inviting, still it was not all that it should be. As I did not pay particular attention to the names of the exhibitors of the honey in this portion of the building, I shall not at this time say anything about the separate lots forming the exhibit.

I trust that something will be done before long to make this exhibit more slightly; it should be one of the finest exhibits in the building. I think it is the duty of every bee-keeper in the State to ask the Management of the Fair to do something for the apiarists of the State, to make their exhibit a creditable one. I know that the Management of the Fair cannot very well spare any of its funds toward defraying the expenses of getting a honey-show together, yet they might do something toward having some one of the several attaches of the building look out and see that the exhibit is not ruined by heat, light and dust. Of this part of the honey exhibit, as well as that shown on the main floor below, I shall say more in another letter.

Before I close, I wish to say that the honey display made by Ventura county is quite creditable; a nicer one was never made in this country, and I had the pleasure of seeing the one made at Chicago last year. Of course it is not as large, by any means, as some of those made at the White City. What I regret is, that this display was not consolidated with that on the gallery above, and both located in some prominent and suitable situation in the building. It is not yet too late to get all the honey at the Fair together in one place, and thereby do the State justice. This along with what honey that might yet be sent in, would give the State a display of the product of the bee-hive that would attract considerable attention.

Already the display of fruit at this Fair has been grand; it has shown that California is pre-eminently a land of fruit and flowers. The fruit exhibits made by some counties are better than those made by some of the so-called "fruit States" of the East. "By their fruits shall ye know them," is true of the exhibits of the counties of California that are especially devoted to fruit culture. But the "fruit of the bee-hive" of the Golden State is not shown at the Midwinter Fair as it should be.

If California bee-keepers do not bestir themselves better in the future than

they have in the past, I fear that they will find the progressive fruit-growers having them in a tight-corner some of these days. Our bee-keepers have been too long hiding their light under a bushel, and nowhere is it better hidden from sight than at our Fairs.

North Temescal, Calif.

Age of Larvæ for Queen-Rearing, Etc.

Written for the American Bee Journal

BY DR. C. C. MILLER.

On page 463, Dr. Tinker says: "All larvæ designed for workers are invariably scantily fed at the start, or for the first four days." I have some doubt if the Doctor will insist on that when he comes to think it over. Haven't you often noticed, Doctor, that when a young queen first lays, the little grubs first hatched will be just swimming in jelly? They are surely designed for workers.

And on page 463, you yourself say that when a comb of just-hatching eggs is given to your queenless colony, "it will be found in a few hours that every larva in the comb will be swimming in royal jelly." The bees can hardly design all these for queens, still it is possible.

I am not prepared to say that worker-larvæ are never scantily fed at the start, but I must confess it looks just a little that way. For don't they always have some extra food by them during the first three or four days, and if there is a surplus there at all, would they use it up any faster if the surplus were twice as great? Have you any proof that the larvæ would, or could, use any more food if they had it?

After all, Doctor, I must admit that your way is a safe one, and there may be a difference in practice that we do not fully understand.

AN OPEN LETTER TO H. M. MELBEE.

MR. H. M. MELBEE:—As your address is a secret, I take the liberty to address you through the columns of the "Old Reliable."

There seems to be a difference of opinion as to the weight of section honey. I think it was pound sections we were talking about, and your point was that people got only $\frac{3}{4}$ of a pound instead of a pound. Locality has a great deal to do with bee-matters, you know. In this locality pound sections don't average as little as 14 ounces. I didn't suppose they did in general. Neither does the

section, when the honey is cut out of it, weigh more than an ounce. But there may be localities where the wood of the section is so thick, and so much glue on it, that it weighs two ounces. At any rate, we'll not get into a quarrel over a little matter of that kind.

Even if I had any inclination to quarrel over it, that inclination would be all taken away by the feeling of gratitude toward you for the secret you have given us as to how to get 24 cents a pound for extracted honey. Let me see if I have it all straight: The secret is to ask 24 cents of all alike, to stick to it and ask 24 cents first, last, and all the time. Because if you don't ask 24 cents you won't get it. The thing looks all clear and easy enough when one comes to see it, and I almost wonder I hadn't thought of it before.

Now I should be very ungrateful if I should not try to share with you a secret that I have. I have a plan whereby you can increase your receipts some 25 per cent., and as a consequence your profits in a larger proportion. I have never tried it myself, for of course I couldn't know of it until I had read your letter, but I'm sure it will work, for it is based upon the reasoning so clearly given by you on page 432. The plan is this:

You know you are now asking 24 cents a pound. Well, instead of asking 24 cents, ask 30. Don't have an asking price and a selling price, but when you ask 30 cents mean it, and ask of all alike, whether rich or poor, black or white. Just ask 30 cents and stick to it. Because if you don't ask 30 cents you won't get it.

Marengo, Ill.

Knowing Your Honey-Flora, Etc.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

From the many letters I am receiving lately, bearing on two old subjects, and asking questions regarding them, I think I can do no better at this time than give an article to the readers of the AMERICAN BEE JOURNAL regarding location, and a knowledge of the same, and the age at which bees gather honey.

Successful bee-keeping is made up of numerous items, all of which bear an important part toward the success attained as a whole; hence the more thoroughly a person understands when to attend to all of these items, so that the right thing is done at the right time

and in the right place, the more sure that person is to attain the success desired. Among these items, a thorough knowledge of the location in which we are situated, as to its honey-producing flora, is by no means the least. Best hives, best strains of bees, and best locality, all play an important part in the success of the apiarist; but none of these are more important than a knowledge of our location. Some of the letters received, alluded to above, show that there is great ignorance along this line among bee-keepers, and as long as this ignorance remains, no one can expect to secure the best results.

How are we to know when to commence to build our bees up so as to have our hives filled with bees and brood at just the right time, when to put on sections, and when to have our swarming all done up, unless we know which flowers produce our honey? The securing of bees at just the right time is the great secret of success, and hives full of bees at any other time amount to nothing.

When I first began bee-keeping I was told by an old bee-keeper, that when he lived in my neighborhood, his bees got an early start by getting pollen from the willow-buds when they first swelled in the spring, as there was considerable golden willow on his place. So I set it down that golden willow produced the first pollen. Soon after, I read in Quinby's book that golden willow produced no pollen, but that the first came from skunk-cabbage. About April 10th I saw the first pollen coming in, and I at once went for the willows, but not a bee was to be seen about them. Next I went to the swamp, around which the skunk-cabbage grew, and there I found the little workers rolling up the pellets of bright yellow pollen and carrying it home, thus showing that Quinby could be safely followed, while my old bee-friend could not.

Then as every new variety of pollen came into the hive, I traced it out, and kept in my diary the date of its blooming—from the skunk-cabbage in the earliest spring to the witch-hazel in latest fall. Then the same was done as regards honey-producing plants and trees, golden willow giving the first, and seldene and a weed with white blossoms, in the woods, the last. This was kept up for five years, and then notes compared so as to give the average time of the blossoming of all plants visited by the bees. Thus, with this knowledge, I could work the bees understandingly, and if the season was early or

late, vary operations accordingly. If those entering, or those already in the ranks of bee-keeping, would thoroughly post themselves in this matter, they would find it a great service by way of receiving a good yield of honey.

AGE WHEN BEES GATHER HONEY.

Having thus looked over our location until we have a full knowledge of the time of blooming of the flowers in it, we next have the age at which bees gather honey. This may be thought by some to be of little interest, but taken in connection with the foregoing, it has much to do with the surplus honey we secure. Many seem to suppose that the bee is capable of going to the fields to gather honey as soon as hatched, or in three or four days, at least; but some facts prove that they do not do so. Bees may be forced to go into the fields for pollen and honey at the age of from five to six days; but when the colony is in a normal condition, as it always should be to store honey to the best advantage, the bee is 16 days old before it gathers honey.

If we take combs of bees just emerging from the cells, and place them in a hive without any bees, as is frequently done to introduce a valuable queen, we will see young bees not more than five or six days old go to the fields, being compelled to do so for pollen, water, etc., because there is none of an older age to go; but this does not prove that bees of that age usually do so. I have conducted two experiments since I kept bees, to ascertain the age at which they first gather honey; and as each proves the same, I believe 16 days to be the time when the bee brings her first load of honey, when the colony is in a normal condition.

About the middle of June a black queen was removed and an Italian introduced in her place. The date was kept regarding the time the last black bee emerged from its cell, and when the first Italian bee came forth. Then the hive was watched, and not an Italian bee was seen at the entrance until the sixth day, when a few took their first "play-spell," as it is termed. Every pleasant day the number of Italians at these play-spells increased, but none were seen out of the hive at any other time until the 16th day after the first Italian hatched. At this time a few came in with pollen and honey, commencing to work about 10 a.m. After this, the number of Italian honey-gatherers increased, while the number of blacks decreased, until on the 45th day

after the last black bee was hatched, when not a black bee was found in or about the hive.

If the above is correct, and I believe it is, it will be seen that the eggs for our honey-gatherers must be laid by the queen 37 days before our main honey harvest, if we would secure the best results from our bees, as it takes 21 days from the time the egg is laid to the time the bee emerges from the cell; and this, added to the 16 days, makes the 37. To be sure, the bees from the time they are 3 days old, help to perform the labors in the hive, hence are of much value toward securing the crop of honey, if we have plenty of bees over 16 days old; but otherwise, all hatching after the middle of the honey harvest are of little use.

Let these things be borne in mind, for I believe that on these two items hangs very much of our success or failure as apiarists.

Borodino, N. Y.

Management to Prevent After-Swarms.

Written for the American Bee Journal

BY F. COVERDALE.

From the experience given on page 305, it seems quite necessary that I should write another article on after-swarming. Mr. Harmer has written a well-seasoned article; however, I certainly cannot help disagreeing.

Now, Mr. H. condemns all traps; this includes the Alley drone and queen trap, and all self-hivers—but the latter I know very little about. "Let us be charitable." We will suppose that he has 50 colonies of bees and his occupation is such that he cannot well be with them every day. What does he think is the best plan to prevent his worrying? If his queens' wings were all clipped, and one of Alley's drone traps at the entrance of each hive, no swarms would leave, and when he returned to the beeyard, those queens that have swarmed will be right where he can get at them in the upper chamber (*a la* R. L. Taylor) of the trap. So much for handiness.

Now, then, just set the old hive to one side, and place the new one on its stand. Move the trap, queen and adhering bees to the entrance of the new hive, shake all in front, set the block in front of the old hive that has the bee-escape attached to it, and move over the surplus case. There is no climbing of trees, and no worry at any time about any thing, for

the worker-bees will pass on out through the cones, whether the bee-keeper is there or not.

To be sure, I am treating only on the production of comb honey, while producing extracted honey would be quite another thing. I am sure I don't know how I could dispose of hatching brood in any better way than the above; of course, these combs of brood could be stored over the section honey, just as I used to do, but this plan causes the section honey to be more or less travel-stained, while the plan outlined above works to the reverse, and I believe is an excellent outline upon which to manage an out-apiary. I see no great reason why not.

The only thing that in my mind could give any great bother, would be when more swarms than one are in the air at once, and when returning not all go back where they came from, but fill some particular hive too full of bees.

Space will not allow treating this as I would like, so I will pass on to where Mr. Harmer asks if young queens don't come out through the cone, and on their wedding flight get lost. Why, certainly, they are killed at the entrance of the new hive or working colony. The first queen that hatches in the old hive destroys all queen-cells, and one is all that will pass out through the cone—just as I want. This gives a grand opportunity to improve the stock by giving nice, large queen-cells from the eggs of the best queen (using a cell-protector).

To be sure, if I could be with my bees during the swarming season, and could, by a little extra manipulation, do away with these extra fixtures, all would be well enough.

Another thing that should be taken into consideration while treating on these different plans of management, is location, which should be thoroughly looked after by the apiarist. If the honey-flow is continuous or good at any time, or times, manage to rear all the bees you can previous to the expected flow of nectar, and as large a force as possible. This plan comes as near to enabling one to accomplish the above result, as any that I know of. When clover is in bloom, all the working force is kept at work in one hive, but two colonies will build up for the fall honey crop and may be doubled previous to the later yield, and with double the profit in honey. That is, where one wants no increase, and when all is done, good, strong colonies will be on hand to begin winter with, and with abundant stores accordingly.

The Sting-Trowel Theory—Open Letter.

Written for the American Bee Journal.

BY REV. W. F. CLARKE.

I should have replied "sooner" to your "Stray Straws" in *Gleanings* for Feb. 1st, referring to myself, Dr. Miller, but that they found me *very slowly* recovering from an attack of la grippe. It will now be my business to show wherein these Straws are a-stray.

If von Planta's work is correct, and it follows as a necessary deduction therefrom that bees do not inject any droplets of formic acid into honey when capping their cells, I am entirely satisfied to have you proclaim the "exit" of my theory. But I should like to have you do it in a correct manner, and in a proper spirit. "Rev. Clarke" is a mode of allusion not sanctioned by the rules of syntax. Nor is it courteous. It is also indefinite. There are I suppose, many "Rev. Clarkes" in the world besides myself. Moreover, the spirit of "Stray Straw" number one is not amiable. There is a chuckle of satisfaction, if not a gleam of triumph in it.

Von Planta's experiments have not yet been corroborated, nor have his conclusions been accepted by the scientific world. I want to see what the highest chemical authorities have to say about them. Cheshire, that most patient and careful microscopist, will certainly follow von Planta with critical scrutiny. Having, in a way, committed himself to my theory, in Vol. II, page 587, of his incomparable book, he is in duty bound to do so. He says: "Here K. K. Mullenhoff and the Rev. Wm. F. Clarke have pointed out that formic acid is provided by the bees by depositing droplets from their stings, which they touch on the face of the honey." Should von Planta's views be confirmed as absolutely correct, it will be in order for Dr. Miller to call on some one to demonstrate that formic acid is not and cannot be imparted to honey at both ends of the bee.

I am not a scientist, and must take largely on trust the scientific facts to which scientists bear testimony. But I want more than one witness to an alleged fact, and am not prepared "to go it blind," at the bidding of any single authority. Gravenhorst quotes Schoenfeld, who says, regarding Mullenhoff's view: "His supposition, that the bees before sealing the cell deposit in it, by means of the sting, a small drop of formic acid, certainly appears to be very natural, and to explain the question in

a nutshell, but it is doubtless incorrect." The reasons then, given for pronouncing Mullenhoff's and my view incorrect are not stated, and I would like very much to know what they are. Dr. Miller will do well to note that Schoenfeld speaks of the theory put forth by Mullenhoff and myself in respectful terms. He says: "It certainly appears very natural." While considering it incorrect, and giving reasons for that opinion, he does not exclaim, with a chuckle, if not a gleam, "Exit Rev. Clarke's theory."

Straw number two is worse than straw number one. I should be thankful to have any one demonstrate that a sting can't be used for a "trowel," if such be the fact. No one has done it yet, Dr. Miller being witness. Why doesn't Dr. Miller do it himself, since he is so anxious to have it done? I will gratefully accept correction of any opinion of mine that can be shown to be an error. But, when, in the acknowledged absence of proof, I am called upon to "be candid enough to arise and explain that there never was any basis except a vivid imagination for the sting-trowel theory," I feel insulted and indignant. This is the old style in which heretics were called on to recant in the dark ages. It is a good thing Dr. Miller has not the power to put me on the rack, and, after torturing me a while, order me to "arise and explain" as above. The old-time heretics were required to subscribe to all he, and I should be telling a lie were I to comply with Dr. Miller's demand.

I thought there was a real basis for my theory, for I should never have concluded that. My reasons have been stated, but I will state them again here as briefly as possible. Having arrived at the conclusion that the bees in capping their cells deposited droplets from their stings which they touch on the face of the honey, the question occurred to me whether they simply squirted the formic acid on the surface of the honey, or made some use of their stings in finishing the cells. Movements of the bees, while the finishing touches were being put on, led me to think that they used their stings as plasterers do very small trowels in putting a putty coat on a ceiling or wall. The microscopic appearance of the surface of the cell-work when finished is such as to bear out the idea. Any one who has seen Cheshire's large charts will understand this point very readily. Finally, it seemed a reasonable thing that a bee-sting should have some other and more beneficent use, than that of inflicting pain and injury.

If my reasons for the theory that the bees use their stings in a wavel fashion are deemed insufficient by Dr. Miller or any one else, it is all right, I do not ask them to accept it. The theory is quite harmless, although Dr. Miller and Editor York affect to think it has done a lot of mischief in Sunday schools and elsewhere. Some time ago, Dr. Miller, I do not remember when or where, conveyed the idea that it had done Sabbath school harm, and an editorial paragraph goes with the Doctor in calling on me to acknowledge the error like a man, instead of permitting the theory to be republished, to the evident detriment of the more intelligent American bee-keepers. All this is very absurd and ridiculous. What surprises me most of all is the ignorance and persistency of Dr. Miller in his attacks on me. In regard to this matter, they have been kept up all these years for several years. I have refuted them for a long time, regarding it as a case of "much ado about nothing," and considering that the *curious and foolish* which has become a chronic disease with him, must often run his head over subjects.

In the *AMERICAN BEE JOURNAL* of April 15th, Mr. G. W. Damore awards me the trophy prize for having put forth theories, absurd and groundless theory that has ever appeared in bee literature. Truly, I have been laden with honors during my brief career as a bee-keeper! In 1872, I took the New York *Bee-keepers Magazine* prize for the best poem on the honey-bee; and now, in 1894, I am awarded the trophy for the silliest theory in bee literature! Mr. Damore is a model experimenter, I I must say. He catches a bee by the wings and provides it with a sting in order to find out whether there is any side motion to the stinger muscle! No; I have won the trophy prize after all. I resign it to Mr. D.

But even this experiment has no outcome by the one designed to show conclusively how formic acid gets into honey. I am astonished that this experiment was permitted to go into print, since it is nothing less than a recipe for the manufacture of anger-honey. All that is necessary is to evaporate some thin sugar syrup over a strong colony of bees. The "emivium arising from the cluster" will do the rest. Excuse all the theories about bees manufacturing honey by means of their heads (glands) and tails (stings). "Bah!" Yes, let all the sheep in the flock, and all the calves in the herd, say "Bah!"

Guelphe, Ont.

Transferring—Gust's Schraeder's Way.

Written for the American Bee Journal

You wants to know w'y I first begins gaein dose pees? Vell, I tole you.

Den years ago, me und Fritz gess married, und mine fadder, the gif me von tow, three gees, umm chickens und a schworm of pees in a parrel for dot. Dis was in the fall, und veset de parrel in der open woods bet pack of de ketchen. Däre da schworm dill schpring, und den flocks out of dat parrel like den edousand.

Von da bout May dím I goes of to Hans Schtums, vot gees pees. Lile und his wife Katrina dill show me dose pees. Vell, I tole you miler Nover I ges dose nice, vite leedle houses, dot Hans had vor bees pees to kee pin, I hast wanted dat schworm in von doo. Den I lant he show me der nice straight gemes, und der leedle poses dot put der honey in. I schuss say mit mine self, "Gust, you must pees a peen und doo." Hans dill show me how he good hand lant dose pees, und dill show me how de dill change mine offer into houses, lites, vot you can liden?

Katrina dill bring me some vine wire und some leedle nails. Hans dill doo hives mit vine wires und my arms mit bapers und books. Fritz lant dot I gees him von goose, two chickens, und der broom to off de dill in peen dím by.

I went home und read dose bapers, und dill show de things to Fritz, und he lot dot was pretty nice. Den I shot de dill und read dose bapers (von week in type, und den I think I know it all. Von Ma, ven Fritz was down in der field, I gees de hives in de frames, und de ferying, all ready.

Mine dill dill ship a bail, I feel him mit sheticks und fire doo, und make a shmoke. Den I get de dill a saw, und a hammer, und mine pig putcher dill, und dill dem lant by. I lant de dill und looks at dot parrel apout von minute, und den I vent doo work.

First I lant I took some sheticks und I shuck de dill in der holes, so dose pees a golden a peider, und I dakes pop de saw und sawed of de dill choops in der saw. I ferying was lolly, und I dinks mit myself, "Gust, now wads you shuardt? Von gees a peen-man already yet."

I loked in der dill hammer und ax, und rebound und pyed dill, shut so quick like noddings, dot dill ave gone off mit a gams pig, bleck of honey shetick in mit him und a crackles Pedar! I tole you miler! Den de dill und dill million pees

The Sting-Trowel Theory—Open Letter.

Written for the American Bee Journal

BY REV. W. F. CLARKE.

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In the AMERICAN BEE JOURNAL of April 5th, Mr. G. W. Demaree awards me the booby prize for having put forth the most absurd and groundless theory that has ever appeared in bee-literature. Truly, I have been laden with honors during my brief career as a bee-keeper! In 1872, I took the New York *Bee-Keepers' Magazine* prize for the best poem on the honey-bee; and now, in 1894, I am awarded the palm for the silliest theory in bee-literature! Mr. Demaree is a model experimenter, I must say. He catches a bee by the wings and provokes it to sting in order to find out whether there is any side motion to the stinger muscles! No; I have not won the booby prize after all. I resign it to Mr. D.

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Guelph, Ont.

Transferring—Gusty Schraeder's Way.

Written for the American Bee Journal

You wants to know vy I virst pegins geeplin dose pees? Vell! I tole you.

Den yeers ago, me und Fritz gets married, und mine fadder, he gif me von kow, dree gees, sun shikens und a schwarm of pees in a parrel for dot. Dis vas in the vall, und ve set de parrel in der open voodshet pack of de keetchen. Dare da schtayed dill schpring; und den kooms out of dat parrel like den dousand.

Von da bout May dime I goes ofer to Hans Schtums, vot geepps pees. He und his vife Katrina da show me hees pees. Vell, I tole you mister! ven I see dose nice, vite leedle houses dot Hans had vor hees pees to keep in, I shust wanted mine pees in von doo. Den Hans he show me der nice shtraight gomes, und der leedle pokes doo put der honey in. I shust say mit mineself, "Gusty, you must pe a pee-man doo." Hans, he show me how he good handle mit dose pees, und dole me how I could shange mine ofer into houses—hives, vot you call dem?

Katrina she pring me some vine vire und some leedle nails. Hans villed doo hives mit vrames und my arms mit bapers und books. For aldot I geef him von goose, two shickens, und der bromise off a leedle peeg bime-by.

I vent home und read dose bapers, und show dose tings to Fritz, und he tot dot vas pooty nice. Den I shtudies und reads dose bapers von veek maype, und den I tinks I knows it all. Von ta, ven Fritz vas va down in der fieldt, I got de hives mit de frames und efferyting, all reddy.

Mine old dinship bail, I feel him mit shticks und fire doo make a shmoke. Den I gets der saw, und hammer, und mine pig putcher knife, und puts dem handy. I shtands und looks at dot parrel apout von minute, und den I vent doo vork.

Firs ting I took some shticks und shtuck dem in der holes so de pees gooden't podder, und I dakes oop de saw und sawed of deem hoops mit der saw. Effery ding vas lofely, und I dinks mit myself, "Gusty, now alndt you shmaradt? You pe a pee-man alreaty yet."

I bicked up der hammer und ax, und bounded und bryed dill, shust so queek like noddings, dot shtave gome off mit a great pig biece of honey shteckin mit him und—cracious Pedar! I tole you mister! Den dousand million pees

shust vill dot shed before I cood got outd o' dot. De alr vas so dick mit pees you cooden't shtir him mit a shpoon. I cooden't hear, nor see, nor veel, nor shmell anything but pees. I shust run mit all mine veet und schream vor "Fritz!"

Fritz vas goomin along oop mit de blow. He see me und de pig schmoke, und he tot dot house vas afire; und I vas so grazy mit dose pees I tot so doo. Fritz run shust like dunder und lightnings right into de middle of dot shed; put he neffer shtoped to put dot vire out.

I neffer gan dell how it vas, but Fritz got mad, und I got mad, und der pees vas mad alreaty yet, und so ve all quarreled to gedder. I told Fritz dot der nex dime I vas experiencing mit mine pees, to shtay mit der fieldt vare he pe-long, und not goom around bickling up droubles mit me. Fritz, he shust vas so mad dot he say somedings dot I vont dell.

Nex mornin ven Fritz vas gone, I peeked into dot shed mit mine von eye vot I got leff, und da vas so quiet und nice dot I say mit myself: "Gusty, you aindt pooty smart mit pees, but I dinks you petter not geef up alreaty yet." So I make de piggest shmoke you effer saw mit dry bine shticks und vet shtraw. Some leedle tobacco, doo. Den I shmoked, und shmoked, und shmoked, dill I cooden't see mit mine eye. An da all shtayed mit dot parrel like a leedle poy mit a vipping. I took der hammer und ax, und my pig putcher-knife again, und vent at it.

I cut de gome loos vrom der nex shtave, und bry him off, dill I haff leedle more as haff all off. I laid von of dose vrames on mine old dable, und goes to de pees und cut away a crate pig bease of comb vot vas hanging dare shust so nice. Den I dakes him doder dable und mit mine putcher-knife, made him vit dot vrame, und mit a good bease of vire und couple or dree leedle nails I make him shtay dare. Shust drive in doo nails—von on von eend dop-bar, und von on odder eend bottom. Den put in de bease of gome and fasten von eend of de vire to de nail on dop-bar; den vind de vire round doo dree couple o' dimes; den fasten de odder eend to de odder nail. I hang him in de hive, und dots all mit him.

De nex biece I dook out vas lots off pees on. I hole dem ofer de shmoke von leedle minute, und den prush dem in de hive mit de gome I shust make. I drimed him down und vired him in a vrame doo. I had doo hives und kept on putting shust so much gome, pees an

prood in von as in de odder dill I haff dem full, for I neffer had seen a queen, und I vasn't presented dot da, needer. As I vas at vork at it I foun goot many bieces vot vas doo shmall doo fill der vrame, so I biece doo or tree togedder und di dem in mit vire.

Py peing careful I got tru alright, mit doo hives full of pees und gome, und lots off nice bieces off gome honey beside.

Ven I vent out dot afternoon, da vas at vork like efferyding, und nex veek, ven I look, dose vrames und gomes vas shust so nice as neighbor Hans's, und I put mine apron ofer mine hed und look, und say mit myself: "Der pees are pooty smart alreaty yet, Gusty, und you vill pe a goode vile to learn vat da knows, und pe a peeman doo."

GUSTY SCHRAEDER.

Hansburg, Westconsian.

CONVENTION DIRECTORY.

Time and place of meeting.

1894.
May 3.—Connecticut, at Hartford, Conn.
Mrs. W. E. Riley, Sec., Waterbury, Conn.
May 15.—Northern Illinois, at Guilford, Ill.
B. Kennedy, Sec., New Milford, Ill.
Aug. 16.—East Tennessee, at Whitesburg, Tenn.
H. F. Coleman, Sec., Sneedville, Tenn.

In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRES.—Emerson T. Abbott....St. Joseph, Mo.
VICE-PRES.—O. L. Hershiser....Buffalo, N. Y.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—HON. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

"Foul Brood; Its Natural History and Rational Treatment," is the title of an interesting booklet by Dr. Wm. R. Howard, of Texas. It also contains a review of the work of others on the same subject. It is being sold at the office of the BEE JOURNAL. Price, postpaid, 25 cents; or clubbed with the BEE JOURNAL for one year—both together for \$1.15. Orders received now.

Read our great offers on page 541.



Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Prosperous Season Looked For.

Bees here have wintered well on the summer stands, and everything looks favorable for a prosperous season.

LESTER L. PRICE.

Odell, Nebr., April 10.

Bees Doing Well.

My bees are doing well. They came through the winter all right, with plenty of bees. They are now on the summer stands. Not many bees died in a colony the past winter.

HERMAN F. HARRIS.

Meriden, Ill., April 9.

Did Well on Orange Bloom.

Bees have done extra well on orange bloom. The colony on scales recorded 82 pounds from that source. Saw-palmetto blooms in May and June, and is usually much better.

JESSE OREN, M. D.

Daytona, Fla., April 9.

Wintered Well—Early Spring.

Bees have wintered very well in this section, as far as I know, but I think the worst is yet to come, and, in fact, is here already, it being cold and wintry. On the morning of the 27th it was only 10 degrees above zero.

I winter my bees in the cellar, and prefer that to any other way, having tried many ways and plans in wintering. I put the bees in the last of November, as I usually do. 120 colonies, and took out 115, having lost 5 in consequence of moving them some distance last fall. I shall unite the weak colonies, as I am doing already. I do so both fall and spring, consequently I have no small colonies to fuss with.

Our bees commenced work the 18th—the same day I finished putting them out—about one month earlier than usual. I think it no advantage, however, for all blossoms that were out are spoiled, and others that were forward are damaged also. My bees came out strong and in good condition. I have as good a strain of bees for business as can be found in this section,

as I have been improving them for several years.

I dispose of about half of my bees every spring, as there is no one to care for them, only my wife and self, and we are well along in years. I do all the out-door work, handling the hives, etc., and my wife prepares the sections, fixtures, and attends to the honey as it is brought in. Our honey crop last season was light, in consequence of the severe drouth. There was no honey of any consequence after the forepart of July. We hope for a longer and better season the present year, and although cold now, the prospect is quite favorable.

H. F. NEWTON.

Whitney's Crossing, N. Y., March 28.

The Killing Blizzard in the South.

Brother Brown's article, from Augusta, Ga., is all right in the fact of the immense damage done to vegetation, fruit-bloom, etc., and the loss that will occur to bee-keepers if the colonies are not fed. Indeed, this killing blizzard was truly death to the flowers. Here in my section, we may have a few grapes from latest buds, and perhaps persimmons, but that is about all, and our outlook is dreary.

J. W. WRIGHT.

Bowling Green, Ky., April 14.

Hoping for a Good Season.

The last season was a poor one for honey here, but we have had a mild winter, and very little snow. My bees wintered very well. I hope we will have a good honey season this year.

I like the BEE JOURNAL very much. I like to read the contents of the letter-box.

What has become of "The Stinger?"

G. W. MITCHELL.

Union City, Tenn., March 24.

["The Stinger" is too busy now to "Sting," and, besides, our space is now too limited to even hold all the "honey" that "flows" in by way of practical information, that will likely keep without any "formic acid" applied by The Stinger!—EDITOR.]

Management of Swarms.

Bees wintered well here—what was left. The would-be bee-keepers were all swept away during the last three poor seasons. Farmers' honey is a scarce article.

On page 408, Mr. Lathrop gives his method of managing swarms with the queen's wings clipped. When the swarm issues he catches the queen and places her in a new hive filled with empty combs, on the old stand, and puts the old hive on a new stand. I do not think his plan is practical if you have more than one hive, and then only in a honey-flow in large apiaries. A dozen swarms may issue at one time, then you would need to have a swarming-

box for each swarm, and cages to keep the queens separate, or they would be balled. Every bee-keeper knows that swarms will go together regardless of the queen, but if you keep your queens in separate cages, and hang them up on swarming-boxes, by shaking the boxes each swarm will go to its own queen. When they are all separated, put the new hive on the old stand, and put the swarms all in front of the hive where they belong. When the bees get nicely started to running in, uncage the queen, and she will run in with them.

It is a good plan to have a sheet thrown over them before shaking them in the front of the hives. By this plan you will catch all of the old or worker bees, and the queens will be accepted.

J. H. OSTERHOUT.

Onalaska, Wis., April 9.

Outlook Somewhat Discouraging.

The weather is very warm and dry here now. Bee-forage will be early in bloom here this year. The thermometer registers from 80 to 85 degrees in the middle of the day. Bees are having access to the buckhorn bush, which is in full bloom now.

The outlook for an ordinary honey crop here is somewhat discouraging for this year, as the rainfall we had is hardly sufficient to produce an ordinary crop, unless we get more. My bees did fairly well last year, giving me an average of 70 pounds of comb honey per colony.

I like the AMERICAN BEE JOURNAL. I often get good ideas from its pages. May it prosper in the good work.

JOHN HAUSER.

Acton, Calif., April 11.

Had a Cold Snap—Report.

A cold snap is what we are now having. We will have heavy losses if it holds on much longer. My bees have been on the summer stands since March 10th—two weeks earlier than usual, but I was forced to put back the largest part of them, to avoid spring dwindling. Our soft maples and elm are all frozen.

My report for 1893 is this: Spring count, 42 colonies, increased to 102, and obtained 5,400 pounds of extracted honey. The basswood flow was short—about two days, and buckwheat was a failure.

F. F. ZILLMER.

Boscobel, Wis., April 10.

Report for the Season of 1893.

I came through the winter of 1892-93 with 50 colonies out of 70 in the fall of 1892. I did not lose many through the winter, but mostly by spring dwindling. It was so cold and wet up to June that the strongest of them scarcely got a living. They commenced to gather some surplus about June 15th, and I got some over 1,000

pounds of nice white and Alsike clover honey in one-pound sections, that I sold readily in my home market for from 13 to 15 cents per pound, but mostly at the latter price, and could have sold as much more if I had had it. I did not get any basswood or linden honey at all, nor golden-rod or fall flowers, on account of the dry weather.

I have kept bees for 32 years, and 1886 was the best honey year we have had in this part of the country since in the sixties.

I have taken the AMERICAN BEE JOURNAL eight years, and don't know how I could get along without it, as there is so much to learn from it. Long may it live to impart wisdom to its patrons.

We had some nice weather in March, and the bees gathered some pollen and honey, but we had a big snow-storm since then, and the bees have been shut up most of the time.

W. H. GRAVES.

New Carlisle, Ind., April 9.

The Fruit in Pennsylvania.

I have been floating around considerably during the last month, having been in four States during the last five weeks. I am glad to find in Pennsylvania that more fruit has escaped the frost than in Illinois, Indiana and Ohio.

WM. BALLANTINE.

Esther, Pa., April 17.

Alfalfa Late in Blooming.

Alfalfa is rather late in blooming this year, still the bees seem to be working well on flowers and fruit-blossoms.

Bees-men are somewhat discouraged as to price of honey, slow sales, etc. Some of us have no returns yet for honey sent East last fall. Still, we are not discouraged. Why should we be, when we live in a climate where bees work the year around, either storing honey or gathering food for their young? Only during the month of November are the hives without young brood.

S. A. STILES.

Easton, Calif., April 3.

The Prospects Don't Improve.

The prospects for a honey crop in East Tennessee grow no better. The blizzard in the latter part of March killed all early vegetation, and we have had cool, disagreeable weather ever since. The woods look dry and brown, like in January, and the bees are working on meal, as well as they usually do in February.

The first bloom that we can now depend upon for anything is poplar, and that usually comes out late in May, and it will probably be later this season.

Bees were in better condition than usual when the March snap came, but with nearly a month of cold weather since, and no pollen or honey to gather, they have not improved any, but have perhaps retrograded.

H. F. COLEMAN.

Sneedville, Tenn., April 14.

Cold Weather Spoiled the Prospects.

Bees in this locality wintered finely. We are now bothering our heads how to successfully "spring" them. They commenced gathering pollen from soft maples on March 1st, and up to the last cold wave. I had stimulated considerable, and had all colonies booming and very strong, but that cold freeze knocked all hopes of a good crop "sky high." Our fruit is almost all gone, plums only remaining. The clover is cut off at the ground.

I purchased 27 colonies of hybrids on March 22nd, and not having time to haul them myself, I contracted for the same. Upon final examination after placing, I found 20 colonies dead on account of insufficient ventilation during transportation. However, I am not disheartened, but hope soon to build up what I lost. At present the prospects indicate but half a crop.

J. C. WALLENMEYER.

Evansville, Ind., April 9.

An Opinion on Two Questions.

Tell Dr. Miller (and others can listen) that changing or killing the queen is the only cure I know of in a case like that mentioned by M. W. G., in question No. 3, on page 394. I have had two similar cases. Young bees would leave the hive as if starving, creep over the ground thick for five feet away, then at night cluster in handfuls on the ground, and creep next day and starve. I have gathered them and put them in the hive, but they would leave at once again. They appeared all right, but some defect might be found with a microscope.

To answer Query No. 916, I would say the better the queen the less will be the stores in the brood-chamber in both cases.

Black Bank, Ont.

J. R. BELLAMY.

Convention Notices.

CONNECTICUT.—The Connecticut Bee-Keepers' Association will hold their 3rd annual meeting at the Capitol at Hartford, on Thursday, May 3, 1894. MRS. W. E. RILEY, Sec. Waterbury, Conn.

ILLINOIS.—The spring meeting of the Northern Illinois Bee-Keepers' Association will be held at the home of Mr. Russell Marsh, in Guilford, Ill., on May 15, 1894. B. KENNEDY, Sec. New Milford, Ill.

TENNESSEE.—The next annual meeting of the East Tennessee Bee-Keepers' Association will be held at Whitesburg, Tenn., beginning on Thursday, August 16, 1894. All members and other interested in bee-culture are invited to attend. H. F. COLEMAN, Sec. Sneedville, Tenn.

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us.

Have You Read page 541 yet?

Honey & Beeswax Market Quotations.

CHICAGO, ILL., Mar. 24.—The honey market will be very quiet for the balance of the season. We will not do much business until new honey comes in. We cannot quote prices but will obtain the best possible price on what little stock we will sell until early fall. Beeswax is very active at 25@26c. J. A. L.

ALBANY, N. Y., Mar. 23.—The honey market is very slow now. The demand is about over on comb. Some extracted wanted at 6c.; 1 lb dark color, 5c. H. R. W. Beeswax, 26@27c.

CHICAGO, ILL., Mar. 15.—There has been a good deal of comb honey sold in the last few days, so that our stock of the best grades is now reduced. We obtain 14@15c. for choice white. Dark is hard to move at 10@12c. Extracted is very quiet, selling at from 4@7c. Beeswax is in good demand at 23@25c. R. A. B. & Co.

CINCINNATI, O., April 18.—Demand is exceedingly slow for all kinds of honey. We quote 12@15c. for best white comb, and 4@8c. for extracted honey. Arrivals and offerings far exceed the demand. Beeswax is in good demand, at 22@25c. for good to choice yellow. C. F. M. & S.

KANSAS CITY, MO., Apr. 6.—We have had an exceedingly slow trade on honey this season, and prices ruled comparatively low. We quote to-day: No. 1 white comb, 1-lb., 14@15c.; No. 2, 13@14c.; No. 1 amber, 12@13c.; No. 2, 10@11c. Extracted, 5@7c. Beeswax, 20@22c. C-M. C. Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for \$1.10.

"The Political Economy of Natural Law" is a book which Messrs. Lee & Shephard have issued, written by Henry Wood, author of "Ideal Suggestions," "God's Image in Man," "Edward Burton," etc. Its purpose is to outline a political economy which is practical and natural rather than theoretical and artificial, being a study of inherent laws and principles. In 1887 this author issued a volume entitled, "Natural Law in the Business World," which was well received and passed through several editions. The present book is not a revised edition, but substantially a new book of double the size.

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McFall, Mo., Mar. 31. **J. E. ENYART.**

Friends, if you want Queens like this, you know now where to get them. See my advertisement on page 516. **JENNIE ATCHLEY.**